

NOVEMBER/DECEMBER 2025

**FEL61/CEL61 — TELEVISION AND VIDEO
ENGINEERING**

Time : Three hours

Maximum : 75 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL the questions.

1. Write the role of tear gland in the eye.
2. What do you understand by composite video signal?
3. Describe the role of Antennas in signal propagation.
4. Mention the factors affecting tuner design.
5. Expand NTSC.
6. Write the Principle SECAM decoder.
7. What are the demerits of pal system?
8. Why APC circuit is used in PAL-D colour receiver?

9. Mention the advantages of video tape recording.

10. What is Digital TV?

SECTION B — ($5 \times 5 = 25$ marks)

Answer ALL questions.

11. (a) Draw block diagram of vidicon and discuss.

Or

(b) Discuss how scanning sequence is performed in composite video signal.

12. (a) Discuss the working of Television Receiver Antennas.

Or

(b) Explain the working of VHF Tuner.

13. (a) Briefly tell about colour picture tube.

Or

(b) Describe the SECAM colour television system along with phasor diagrams.

14. (a) Explain the separation of U and V modulation products.

Or

(b) Elucidate the working of subcarrier generating and control.

15. (a) Write a note : on remote control.

Or

(b) Give an account on video tape recorders.

SECTION C — ($3 \times 10 = 30$ marks)

Answer any THREE questions.

16. Write a detailed note on theory of scanning and picture tube.

17. Explain the single ended AFC circuit.

18. Describe the PAL colour television system with neat block diagram.

19. Explain about colour television receivers and tell about PAL -D colour receiver.

20. Analyse the "video disc systems in detail."

